

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of: Barbara J. Boe, et al.
Serial No.: 09/966,845
Filing Date: September 28, 2001
Examiner: Yehdega Retta
Art Unit: 3622
Title: SYSTEM AND METHOD FOR PROFILING
CUSTOMERS FOR TARGETED MARKETING

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

DECLARATION PURSUANT TO 37 C.F.R. § 1.131

We, Barbara J. Boe, Julia M. Hamrick, and Marjorie L. Aarant hereby declare and state that:

1. We are the inventors of the subject matter of the above-referenced Application entitled "System and Method for Profiling Customers for Targeted Marketing" filed on September 28, 2001 (the "Application") which is a reissue application from U.S. Patent No. 6,240,333 based on U.S. Application Serial No. 09/162,825 filed September 29, 1998.

2. The Examiner rejected Claims 1-28 of the Application in an Office Action dated June 15, 2004 based, in whole or in part, on U.S. Patent No. 6,430,542 issued February 19, 2002 to Moran based on U.S. Application Serial No. 09/141,013 filed August 26, 1998 (the "Moran patent") and U.S. Patent No. 6,349,290 issued to Horowitz, et al. based on U.S. Application Serial No. 09/337,014 filed June 30, 1999 from U.S. Provisional Application No. 60/091,276 filed June 30, 1998 (the "Horowitz, et al. patent"). Thus, the effective filing dates of the Moran and Horowitz, et al. patents are less than one year prior to the effective filing date of the Application.

3. We developed an understanding and appreciation of the subject matter of at least Claims 1-28 of the Application prior to June 30, 1998, the earliest effective filing date of either the Moran or Horowitz, et al. patents, while working at Ignite Sales, Inc. Prior to June 30, 1998, we prepared a web site flow chart containing a description of the subject matter of Claims 1-28 of the Application. Attached herewith as Exhibit A is a redacted version of the web site flow chart showing pertinent portions detailing our understanding of the subject matter of the claims. Prior to June 30, 1998, we also prepared a document entitled "MoneyMatch White Paper" containing a description of the subject matter of the claims. Attached herewith as Exhibit B is a redacted version of the MoneyMatch White Paper showing pertinent portions detailing our understanding of the subject matter of the claims. Prior to June 30, 1998, we also prepared notes containing a description of the subject matter of the claims. Attached herewith as Exhibit C is a redacted version of the notes showing pertinent portions detailing our understanding of the subject matter of the claims. These documents demonstrate that we had a clear comprehension of the invention, its components, and their interrelationships prior to the June 30, 1998, the earliest effective filing date of the Moran and Horowitz, et al. patents cited by the Examiner.

4. With the help of a patent attorney, we generated a draft of the Application that, prior to June 30, 1998, was substantially identical to and included all of the subject matter of the Application as filed. Between June 30, 1998 and the original filing date of the Application, we finalized the paperwork in anticipation of filing. Attached herewith as Exhibit D is a correspondence letter with dates redacted demonstrating some of our continuing activities, which began prior to June 30, 1998 and continued through to the original filing date of the Application.

ATTORNEY DOCKET NO.
065027.0103

PATENT APPLICATION
09/966,845

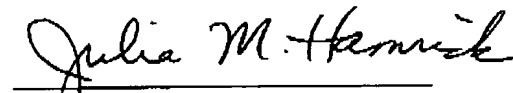
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5. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true. Further, we declare that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the Application or any patent issuing thereon.

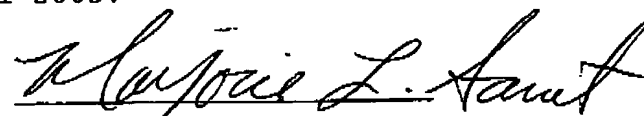
Signed this 13th day of April 2005.


Barbara J. Boe

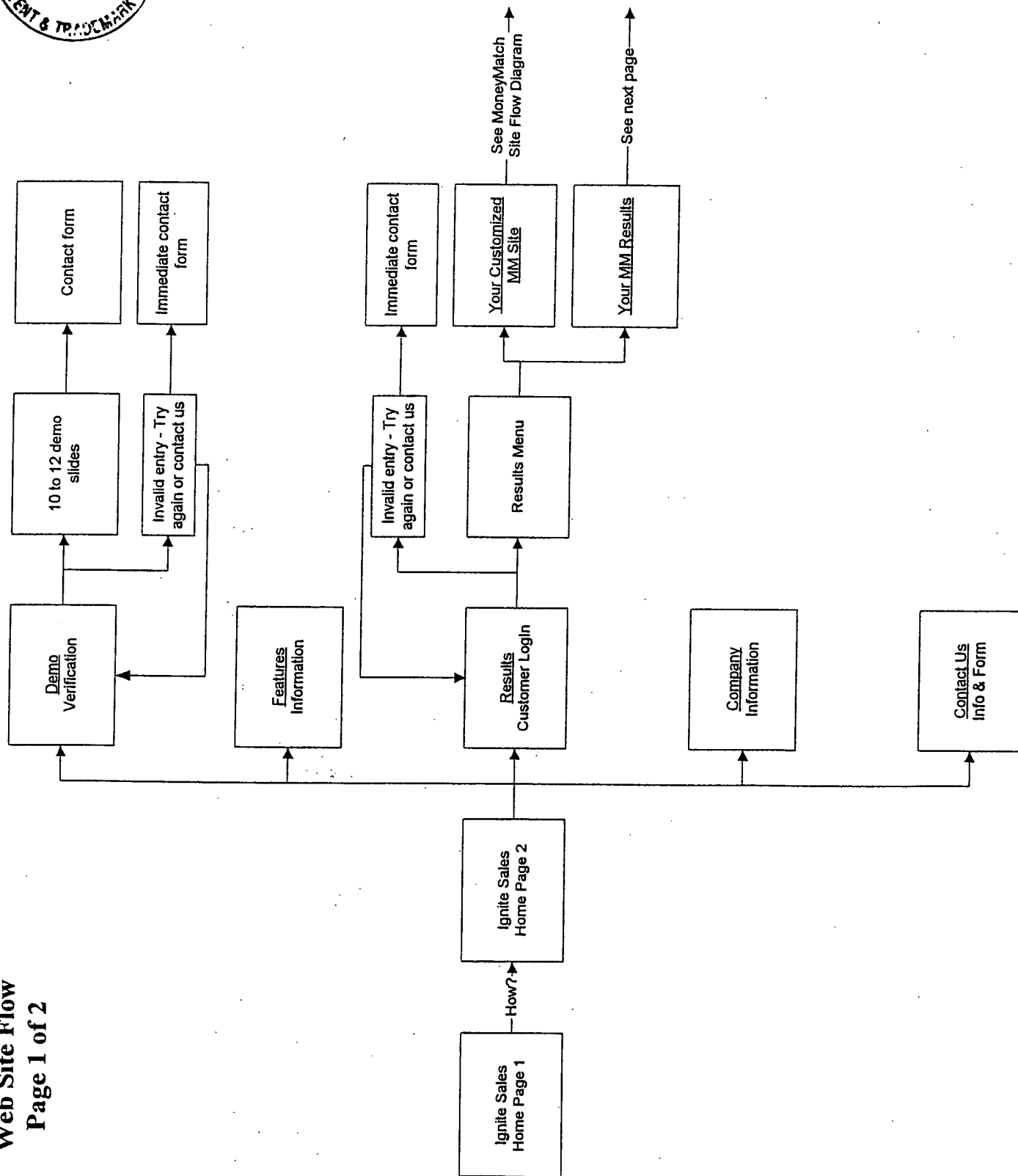
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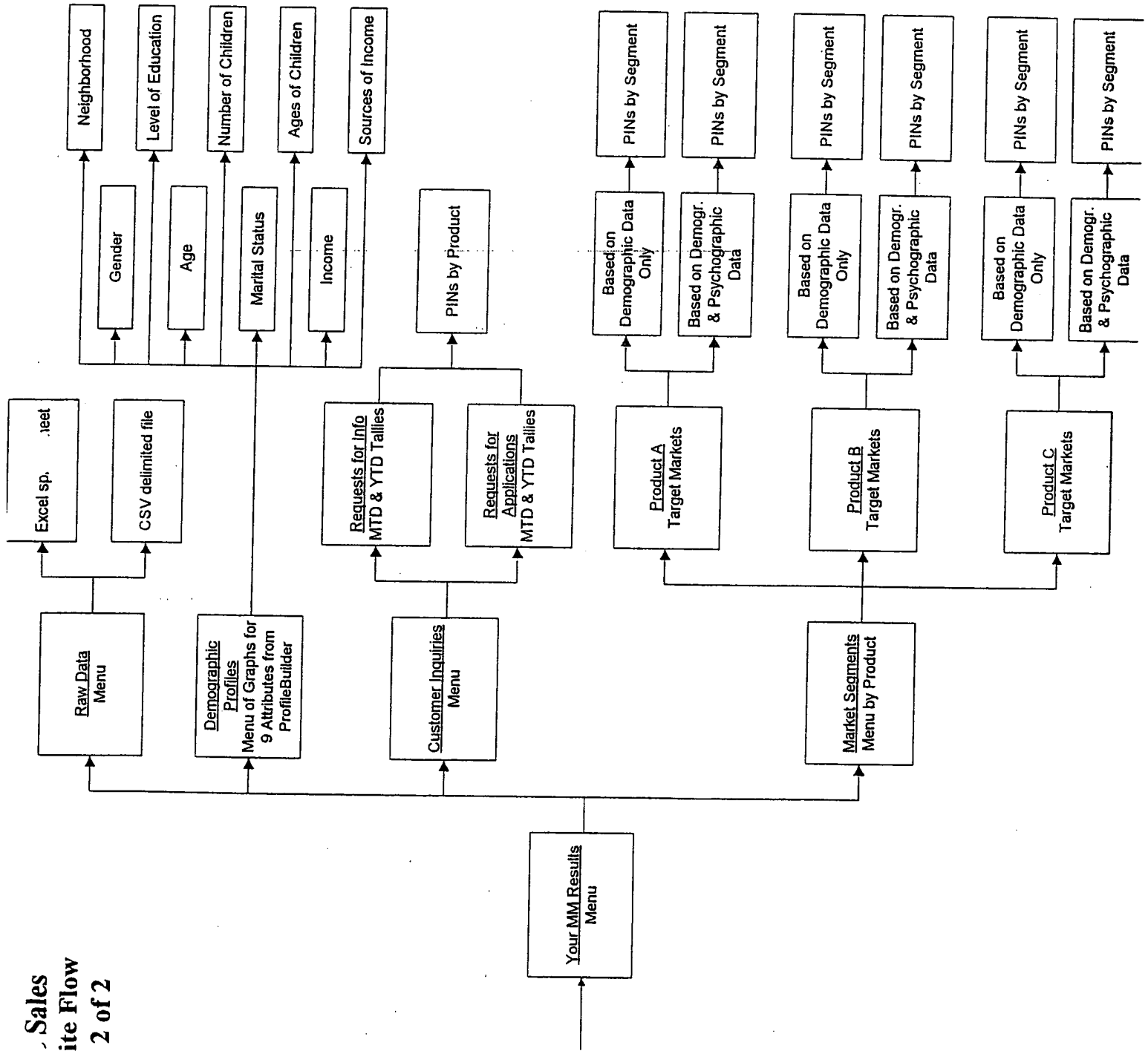

Julia M. Hamrick

Signed this 13th day of April 2005.

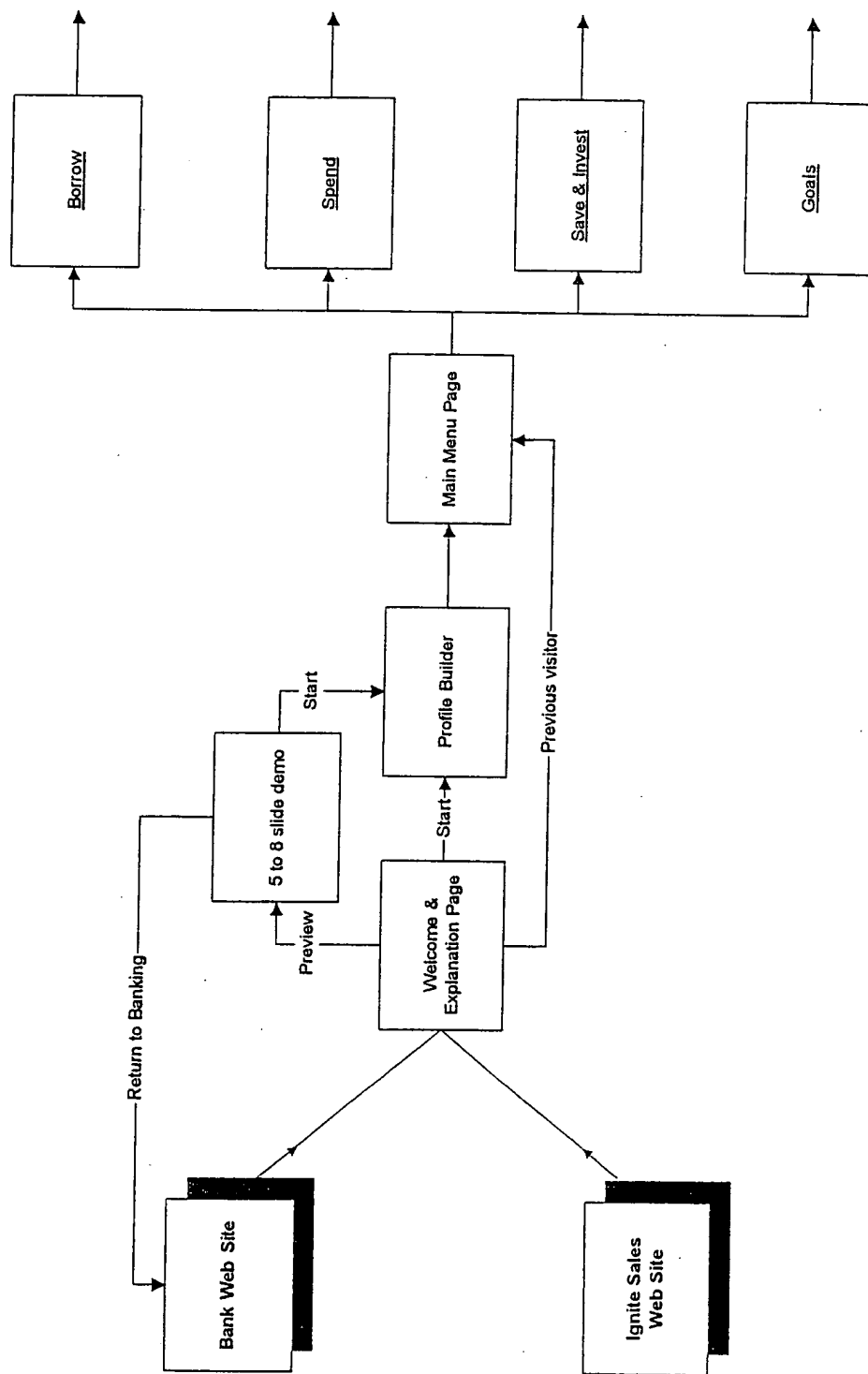

Marjorie L. Aarant

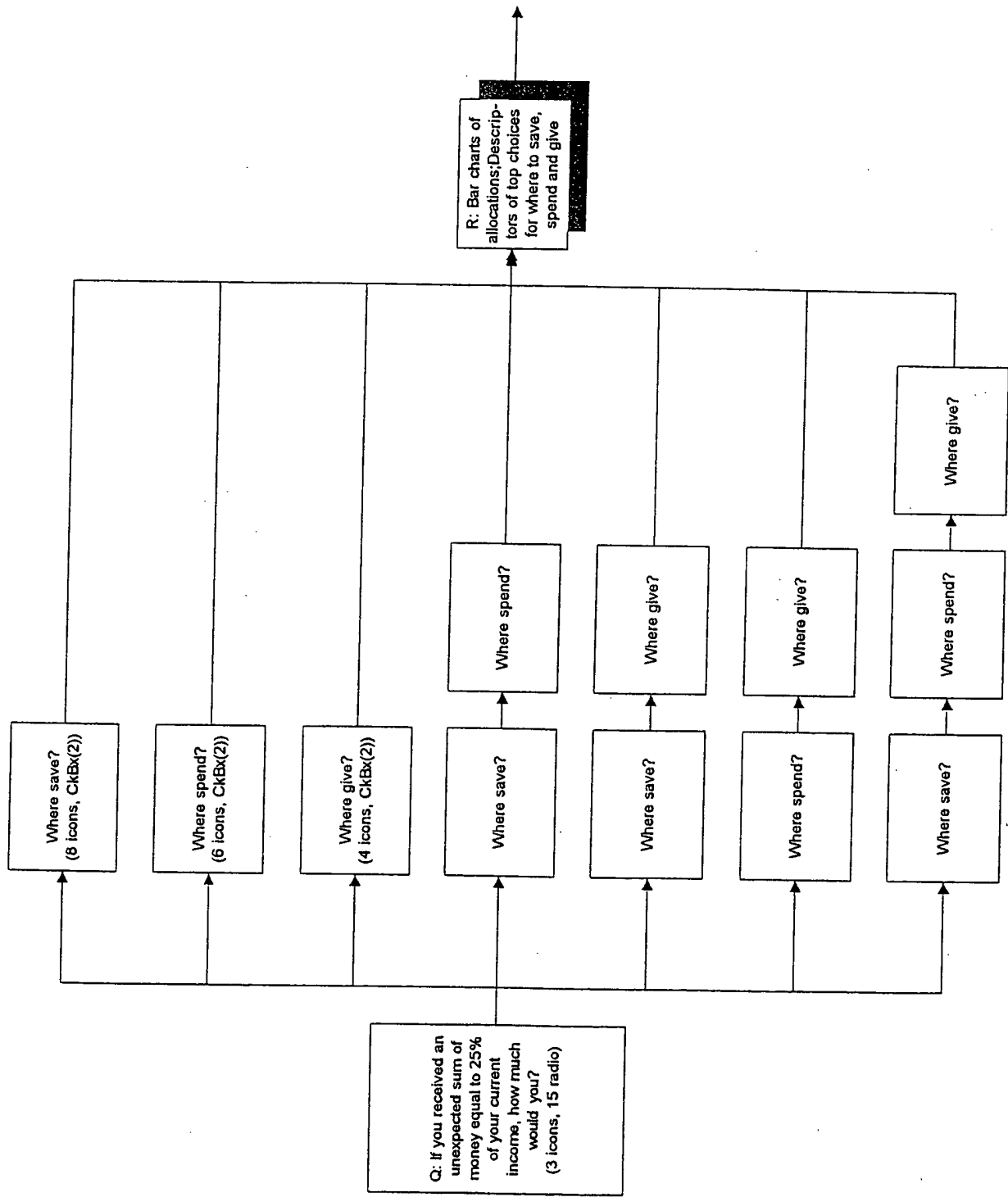
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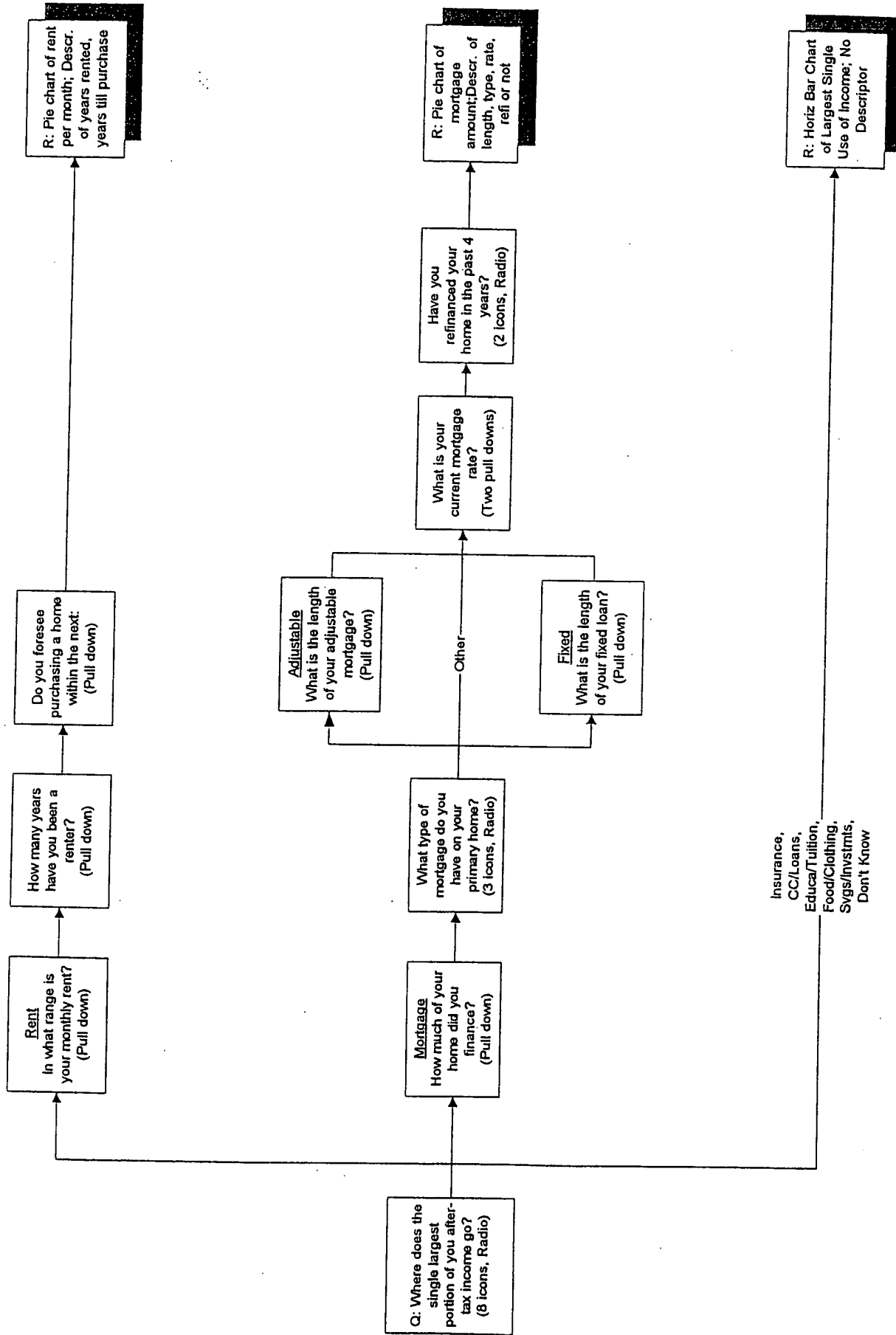


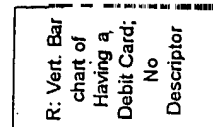


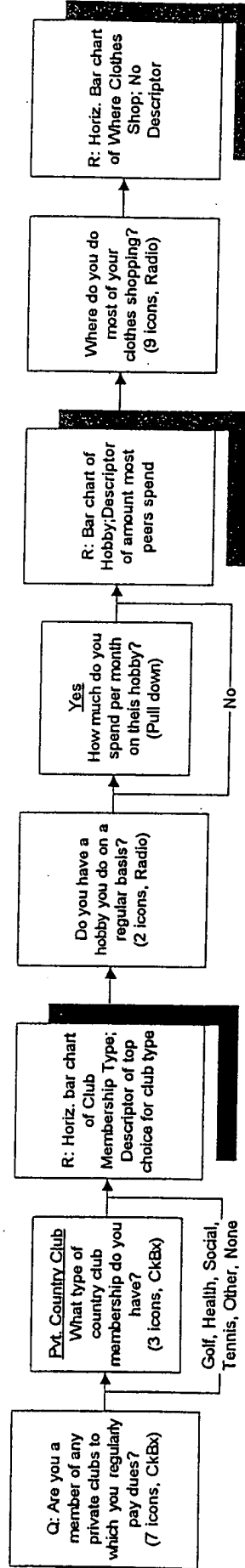
**MoneyMatch
Web Site Flow
(8 pages total)**

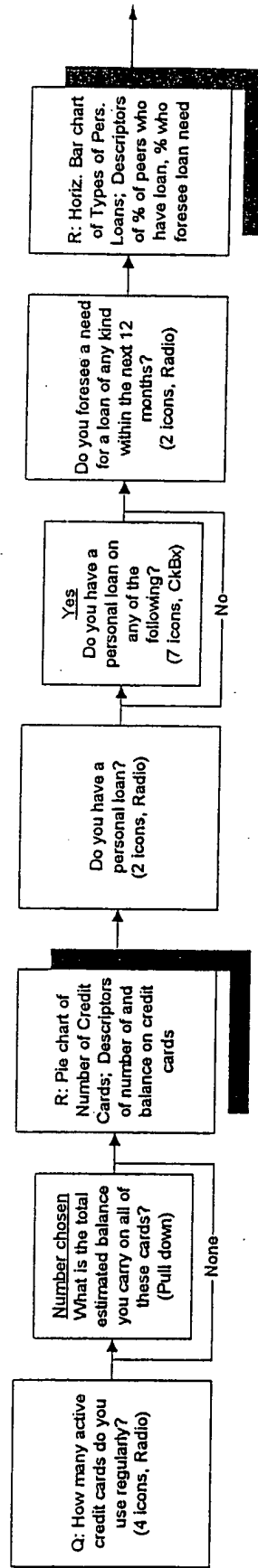


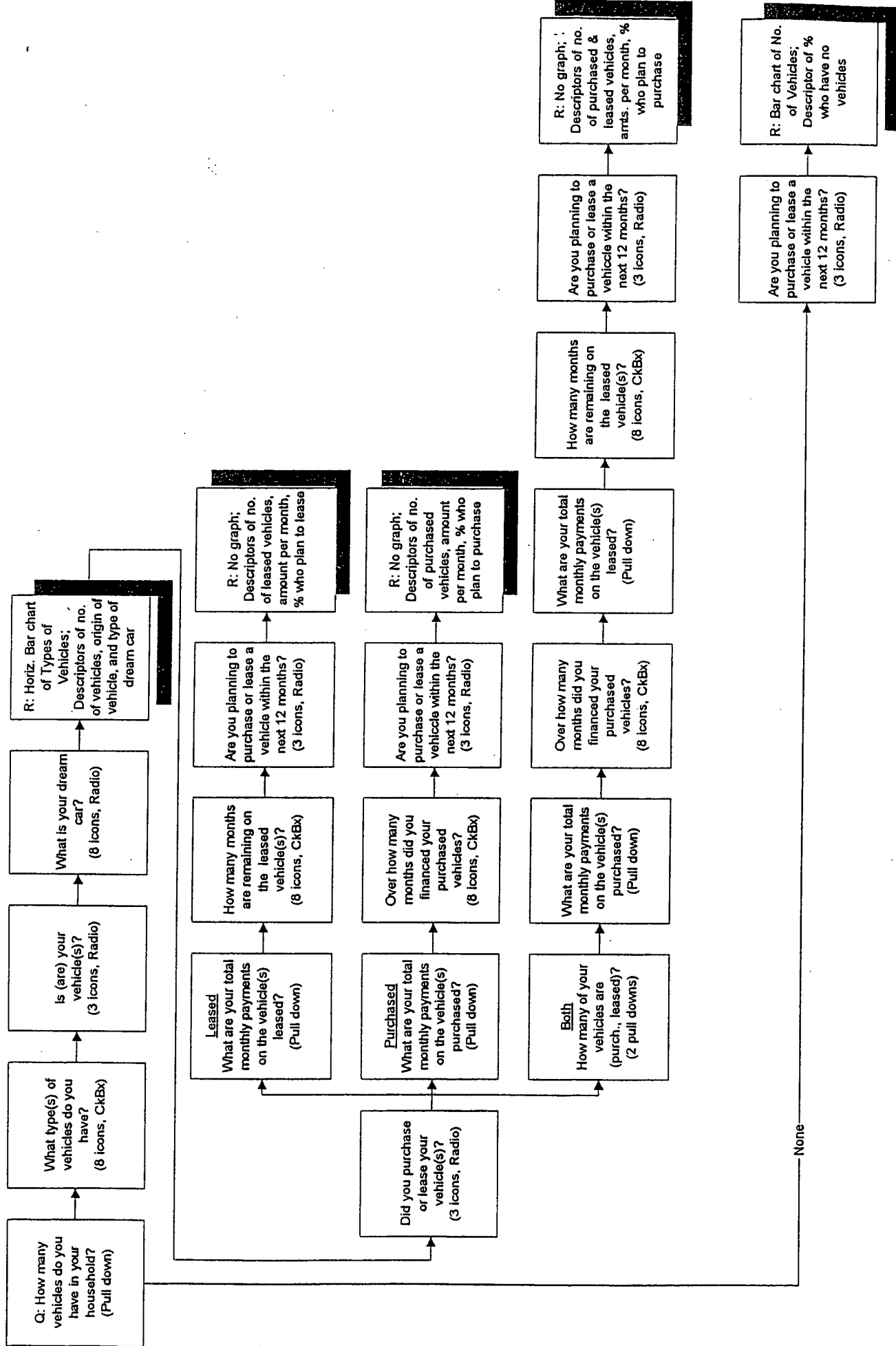






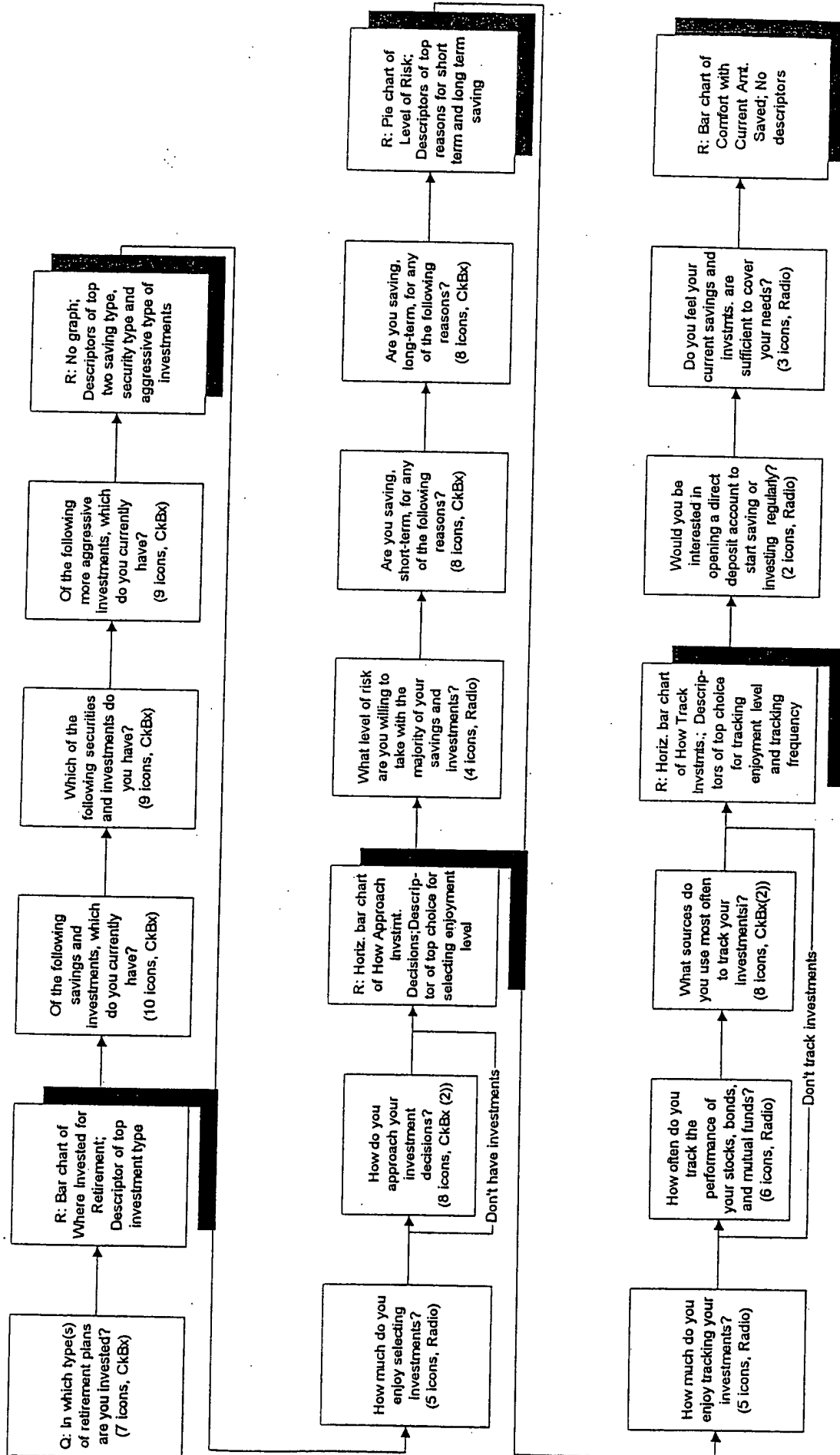


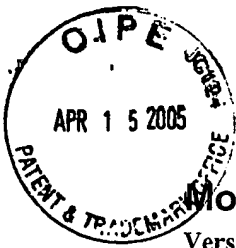




SAVE INVEST MODULE

Page 1 of 1





MoneyMatch White Paper

Version 0.7

What is MoneyMatch?

The MoneyMatch Web site provides a means for banks to acquire information regarding their customers. Visitors of the site are prompted with questions regarding their banking, spending, and saving habits. As well as their financial goals. Available to only those customers who access banking services on-line, MoneyMatch also allows visitors to view information about other individuals, thus rewarding visitors for their efforts. The information presented will be the correlations obtained through statistical analysis of previous visitors' responses.

A Visitor's View

A visitor will enter MoneyMatch by choosing the MoneyMatch link, available on the bank's web site. First-time visitors will be asked to register and provide the following information: gender, age, marital status, education level, children, zip code, area code and residential description. Once registered, visitors may choose one of the following areas of interest: spending, savings, debt and goals.

Within each area, visitors answer a series of questions and are rewarded with response pages that allow them to view compilations of statistical information and compare themselves. Comparisons will be presented in such a way that eliminates the need to reenter information and create "what if" scenarios.

Security

To provide confidentiality, as well as ensure that the site is accessed only by authorized bank customers, each bank will provide MoneyMatch with its unique bank ID, as well as a unique customer ID. Each ID will be encrypted and MoneyMatch will use this information to retrieve previous responses. However, MoneyMatch will be unable to identify the visitor. Visitor IDs can be used by a bank to identify a customer. Because the user will perceive that his or her bank is the questioner, the information can be viewed as confidential.

The MoneyMatch Web Site

MoneyMatch is a dynamic and database intensive Web site. It consists of an HTML server, an SQL database and a collection of statistical rules. The site is hosted on a Microsoft NT 4.0 server. The primary tools used by MoneyMatch are Microsoft's IIS version 2.0, Allaire's Cold Fusion version 2.0, Microsoft Access version 7.0, Microsoft SQLServer version 6.5 and SAS. ?

Tools and Construction

Database

The heart of MoneyMatch is its database. The database consists of the following tables:

Table	Description
Client	Contains contact information and verifying credentials about authorized bank users.
Invoice	Contains any billing information that may be generated due to the request of a client.
Mapper	Used to map coded responses to pretty and descriptive strings.
Response	Contains the answers given by visitors.
Stat	Contains the statistical data about all previous responses gathered from visitors. Note: This may consist of multiple tables.
Visitor	Contains whatever information is retained about a visitor.

Client Table

Contains general contact information—if available—and visitor credentials.

Invoice Table

Not in version 1.0??????????

Mapper Table

For each *response table* there is a corresponding *mapper table* that is used to retrieve pretty and descriptive string representations of responses. Is this one huge table?:

ResponseTable	Question	Answer	Value	PrettyValue

Ask Nigel about this.

~~ANSWER~~ Response Tables

This is actually a collection of tables each of which contain the responses of a particular section of the questions. For example The "Spending Habits" question session "might" have a response table associated with it names SpendingHabits. SpendingHabits would contain the answers encoded as documented below:

Each row of a reponse table contains information about collected responses.

VisitorID	Ans 1	Ans 2	Ans 3	Ans 4	DB vrs #		

VisitorID is unique key given identifying the visitor who provided responses. It is an index into Visitor

The Ans* columns are grouped by collections of responses. These collections are the responses to groupings of questions. For example, the answers to a "Spending Habits" Q/A session. A row is inserted when all questions have been retrieved and a response page generated.

Ans* columns are integers. Additionally they can be used to retrieve a pretty printed representation to the answer by a mapping a corresponding mapper table.

Note: The Visitor table could be considered a special case of a response table. Special because it is not purged, cleaned etc periodically as are other response tables. Why? Because someday this whole thing will be automated and then class specific code can be used to retrieve visitor information.

Question: How are previous Q/A sessions tracked? Is information redisplayed? It is used as an index into and by other tables.

Stat

Not yet defined. However, the table will be populated by the StatServer and used in the construction of the response pages to show visitors how they compare to other visitors.

Question: Will this be a 3D matrix?

Visitor

This table will contain the visitor's unique PIN, bank ID, and *VisitorID*. It may also be used in the future to retain more information about a visitor.

How it Works

The Visitor Drives

As visitors participate in the question and answer sessions, their responses and "state information" are retained in JavaScript and server-side, browser managed, variables. Thus, it is the user interface that manages the "state" of a visitor. Once a grouping of questions and answers is completed, the responses are saved to the appropriate *response table*.

For each *response table* there is a corresponding html file containing a frameset which contains JavaScript that has the ability to manage a collection of html files containing the ability to ask the appropriate questions, commit the responses, and generate a response page.

State Transitions

A visitors session can be denoted by a state transition diagram (see diagram 1). The diagram depicts the ability of each Q/A page to link to a next page and link to a "resting" page. The resting page is that which provides help, saves a session, etc.

The use of a classical state transition diagram is hampered by the fact that it is difficult to enforce aspects of more traditional programming languages onto a web site. Therefore, only so much emphasis is placed on the definition of the transition diagrams. However, the diagrams provide a good impetus for the linking and interactions among the Q/A pages.

Statistics Server

The StatServer is responsible for populating the statistics table of the database. These tables are used when presenting visitors with response pages, and by clients in the interpretation of the responses.

The StatServer is a process that is invoked once every 24 hours. A time should be chosen when visitors are not likely to utilize the system; for example, 4 a.m. CST.

The basis for the statistics tables, created using SAS, falls to Neil and Becky. It has not yet been defined whether SAS will be utilized at run-time or if a custom application will be created. Some issues to consider in making this decision are: performance, accuracy, reliability and value. Performance and accuracy are assumed in either implementation. Reliability and value to Ignite are unknown and important.

The following are requirements of the StatServer:

1. If possible, check to see if any sessions are running, and take appropriate action.
2. Put up a entry page that tells visitors the system is down for ? amount of time and ask for them to come back later.
3. Clear the session table.
4. Regenerate the statistics table.
5. Generate reports to any client with an outstanding report/inquiry request.
6. Generate a report to Ignite about the sites status. Include perhaps a page to which Barbie and Julie can browse or generate an e-mail.

Terms

Clients	Users at banks who subscribe to MoneyMatch
Visitors	Bank customers who visit moneymatch.com
StatServer	The daemon process running on moneymatch.com that periodically regenerates the statistical information.

IMMEDIATE TERM - SIMPLE (Demographics-based)

Data set
of 200-300
people

Statistical Analysis determines the most influential demographic attributes are:

- Age
- Marital Status
- Neighborhood Type
- Income

NEAR TERM - MORE COMPLEX (Clustering, Predictive-based)

Data set
of 500-1000
people

Statistical Analysis determines the most influential questions (responses) are:

- Mortgage size
- Family size
- Credit card balance
- Level of risk for long-term investment
- Have a personal loan



LONGER TERM - ~~COMPLEX~~ SOPHISTICATED (Pattern Matching, Neural Network-based)

Data set
of 3000-5000 people

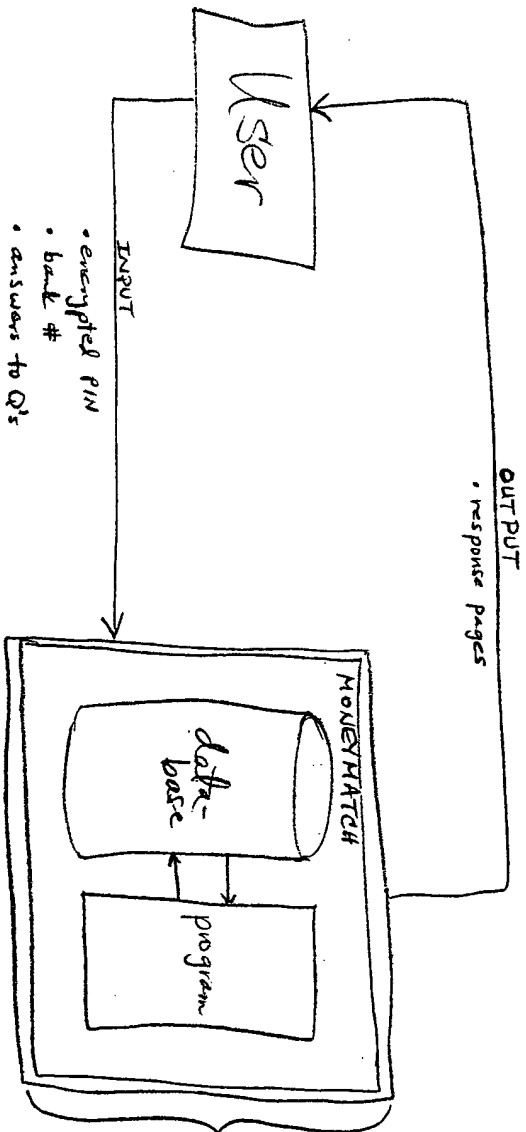
Analysis determines which profile best fits user as questions are answered and predicts user responses and recommends products. Program learns as it gains more data; profiles are dynamic.

User input → Database/Program → Output to User

- determine which combo key fits user
- look up summary data for response page
- look up graphic for response page
- create response page

Bank input → Data compiling/reporting → Output to Bank
functions

- look up users for bank id#



- select appropriate bank background
- add user's raw data to database
- calculation to determine which combo key fits this user
- based on combo key, look up response data for each question user answers
- output the appropriate summary data & graph via response page

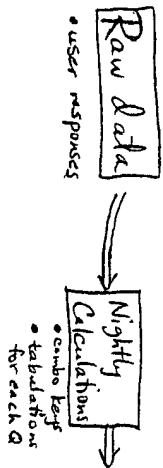
Immediate term Example

USER INPUT

Key Demographic Attributes "Combo Key"	Age Marital Status Neighborhood Income	<u>User 1</u>		<u>User 2</u>	
		56-64 yrs old	Widowed	33-38 years old	Single
		Suburb	Suburb	City	City
		\$141K-\$200K	\$141K-\$200K	\$61K-\$80K	\$61K-\$80K
Personality Questions Answered	Debt 1	3-5 credit cards	10+ credit cards		
	Debt 2	\$2001-6000 credit card balance	\$12,001-18000 credit card balance		
	Sp Habits 2	largest portion of after-tax income goes to <u>savings</u> <u>investments</u>	largest portion of after-tax income goes to <u>rent</u>		
	Sp. Habits 8b	Dines out 3-5 times per week	Dines out 6+ times per week		
	Sp. Habits 8b4	Spends \$1501-2500 per month dining out	Spends \$500-1000 per month dining out		

Intermediate term Example


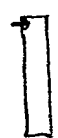








Database & Program Functions



Summary Data		COMBO KEY		COMBO KEY	
		D	E = F = G	H	etc.
Question D1	None	56-64 yrs old		33-38 yrs old	
	1-2	Widowed		Single	
	3-5	Suburb		City	
	6-9	\$141-200K income		\$61-80K income	
	10+				
Question D2	Pay off ea. mo.				
	< \$2000	34%		8%	
	\$2001-6000	25%		12%	
	\$6001-12000	12%		19%	
	\$12001-18000	20%		32%	
	\$18001-24000	4%		26%	
	> \$24000	4%		3%	
		1%		0%	

Immediate term Example

Look-up Table for Graphics

<u>If</u>	<u>Then Use</u>
1% - 5%	 or 
6% - 10%	 or 
11% - 15%	 or 
=	
90% - 95%	 or 
96% - 100%	 or 

Immediate term Example

Output to User

(In graphical format to be determined):

USER 1 RESPONSE PAGE

OPTION 1

Most(?) people in your age + income range have 1 to 2 active credit cards and pay off the balance each month.

USER 2 RESPONSE PAGE

Most(?) people in your age + income range have 3-5 active credit cards with an unpaid balance between \$6001 and \$12000.

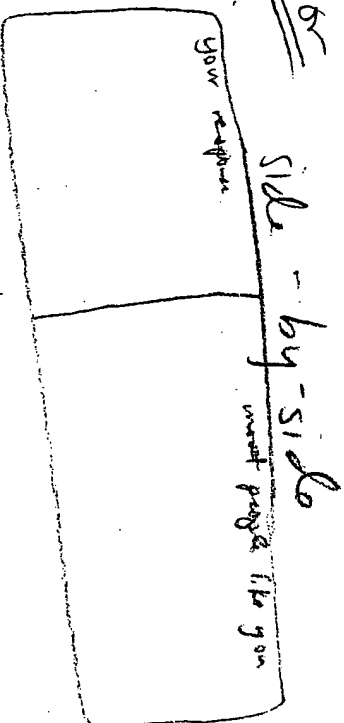
PEO'S + CON'S OF THIS OPTION

- + static response based on each combo key group
- user may not remember what he chose

277
age:
3-5
1290 h
between

1290 of the people in your age + income range have 10 or more active credit cards. 2690 have an unpaid balance between \$12001 and \$18000.

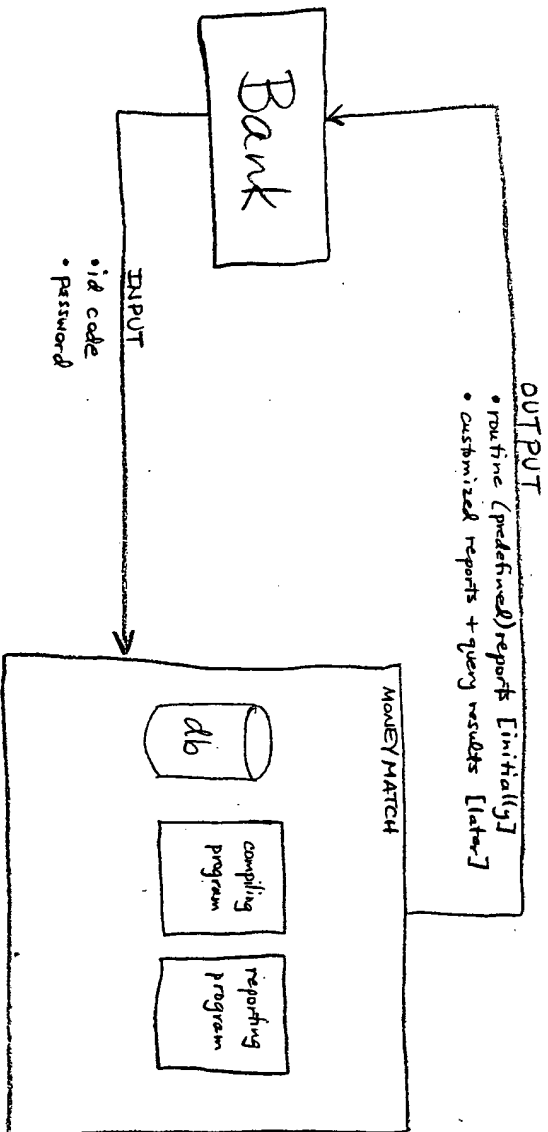
- + encourages user to revisit site or play what it's to find out what most people do
- dynamic response page is less efficient (user response time)



Of people in your age + income range, you are in the 99th percentile for number of active credit cards, and the 96th percentile for active credit card balance.

- + user knows where he stands against entire population
- it is "better" to be in the lower percentiles for debt questions like this (very cause confusion)
- dynamic response page (time)

Q: Which response page provides the user with the information most desired?

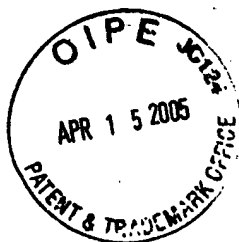


Examples of reports (by bank id#):

- # bank customers who visited the site
- # " " in each profile
- histograms of responses for Q's most closely related to bank product sales
- # users (by profile) who selected a bank product link
- user answers for selected questions (by encrypted P/N#)
- probability of purchasing bank products by profile or by user (encrypted P/N#)

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PRIVILEGED AND CONFIDENTIAL ATTORNEY-CLIENT COMMUNICATION

VIA HAND DELIVERY

Ms. Julie Hamrick
Ignite Sales
15301 Dallas Parkway, Suite 840
Dallas, Texas 75248
(972) 458-5522

Re: *System and Method for Profiling Customers For Targeted Marketing Patent Application*; Our File No. 065027.0103

Dear Julie:

Enclosed is a draft copy of a patent application covering the above-identified invention, together with a copy of the rough drawings. Please review the application to determine if it accurately and adequately describes the invention, noting in red on the enclosed copy any comments or revisions you deem necessary. The application must disclose the best mode of carrying out the invention; please let me know if it does not.

After you have completed your review, please return the draft to me. I will then place the application, incorporating your remarks, in condition for filing in the Patent and Trademark Office, and the original will be sent back to you for formal execution.

Please note that at the time the application is executed, you will be acknowledging your duty to disclose material prior art to the U.S. Patent and Trademark Office. Such prior art includes relevant patents and printed publications, information concerning public use of methods or apparatus related to the invention, and information on public use or sales of the invention (or related methods or apparatus) made more than a year ago. Failure to disclose such prior art may invalidate any patent issuing on the application.

Ms. Julie Hamrick

- 2 -

We look forward to working with you in fine-tuning the claims. If you have any questions, please do not hesitate to call me.

Very truly yours,

BAKER & BOTTS, L.L.P.

A handwritten signature in black ink, appearing to read "Kevin Meek". The signature is written in a cursive, flowing style.

Kevin J. Meek

KJM:du

Enclosures